Clarifying the Concept of Problem Gambling

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Introduction

The following is a summary taken from the report *Measuring Problem Gambling in Canada*. It is a report on results of the first phase of the interprovincial Canadian Gambling Prevalence Research Project. This phase attempted to clarify the concepts of problem gambling, develop an operational definition (see page 11 of this summary), and develop an instrument for measuring problem gambling in the general population. This summary focuses on the various concepts that have been used to explain problem gambling. These concepts include models and theories. Theories are systems of ideas that try to explain something, and they can be based on general principles that are independent of the thing being studied. Models, on the other hand, are very closely tied to what they try to explain. They are very specific. They try to explain the way that a group of variables act together, and act on one another, through time, through stages of development. (Prochaska and Diclemente's Stages of Change is a model; it explains how people change, rather than why people have problems, and there are stages of development.) Models are useful for guiding research and treatment. The report focuses on models, but also discusses them as they relate to some important theories.

The report divides the concepts into five groups: the medical or disease model; biological theories; psychological theories; sociological and other assorted theories. It emphasizes that there is some agreement across the research literature: gambling is usually seen as a combination of biological, psychological and social factors. Researchers differ in which factors they emphasize as contributors to problem gambling. Although the groups are discussed separately, there are overlaps.

Summary: Current ways of viewing problem gambling can be divided into five groups:

1. the medical or disease model
2. biological theories
3. psychological theories
4. sociological theories
5. other theories

The Medical or Disease Model

This is, arguably, the dominant model in North America at the moment. Gambling is seen as a disease. You are either a compulsive gambler or not compulsive. The distinction is black and white. The difference is qualitative. The "qualitative" difference implies that gambling for a compulsive gambler is a different activity altogether from what it is for any other gambler. Gambling is **not** seen as a continuum from no gambling, to recreational, to mild problems, to serious. You either have "the disease" or you don't.

Two terms are used here for problem gambling: Gamblers Anonymous and other lay groups use the term compulsive gambling. Psychiatrists and other clinicians tend to use the term pathological gambling.

The Diagnostic and Statistical Manual (DSM-IV) of the American Psychiatric Association contains diagnostic criteria that exemplify the disease model. It is definitive: you have the disease or you don't.

In the medical or disease model, compulsive gambling is seen as something that happens to the person. It is a problem in and of itself, and not a symptom of another disease. The disease follows a recognizable course. It has characteristic signs, symptoms, and stages of development. The

qualitative difference between gamblers and non-gamblers may be due in part to a physiological factor that predisposes the individual to compulsive gambling.

Rosecrance (1985-86) summarizes the major components of the disease model as:

1. There is a single phenomenon that can be called "compulsive gambling."
2. Compulsive gamblers are qualitatively different from other gamblers.
3. Compulsive gamblers gradually lose control, and are eventually unable to stop gambling.
4. Compulsive gambling is a progressive condition, and one with an inexorable progression through well-defined stages:
   a. Initial success, usually a "big score," leads to expectations of future winnings, and an increase in gambling.
   b. Progressive loss of money. The gambler thinks only more gambling can restore finances.
   c. Need to continue gambling increases, a need to be "in action" that is driven by irrational optimism about winning, until the need to gamble becomes an all-consuming compulsion.
   d. Money becomes simply a means to gamble, not an end in itself.
   e. The gambler suffers psychological distress, as unresolved feelings of guilt keep the gambler gambling.
   f. The gambler begins to "chase" losses (i.e. when the gambler loses, they will quickly return to gambling to try to recover the loss). At this stage, the gambler will do almost anything for gambling, including illegal activities (e.g. theft, fraud, embezzlement).
   g. Bouts of guilt and self-castigation lead to attempts to abstain, followed by rationalization, and then by another round of betting. Gambling is no longer a pleasure, but a compulsion, undertaken in a frantic, even ritualistic manner.
   h. The gambler hits bottom. All sources of money have been exhausted and rationalization is no longer possible. The person finally acknowledges that further gambling would be catastrophic.
5. Compulsive gambling is a permanent and irreversible condition. The only cure is total abstinence.

Other researchers that use this model agree with Rosecrance about the major features, but some add a few other features:

1. There is rapid progression through the stages (Custer, 1982). Someone who gambles socially for years is unlikely to progress to pathological gambling.
2. Only some gamblers reach hopelessness (Rosenthal, 1992). It is possible to gamble socially for years before the onset of compulsive gambling (Rosenthal, 1992).
3. Jacobs's model sees a physiological state combining with psychological reactions to social and developmental experiences, which triggers gambling behaviour. More about this later.

Advantages of the Medical/Disease Model

1. This model can lift much guilt from the gambler and the family.
2. It gives a simple way for people to understand problem gambling, and makes it easy to educate gamblers and their families about the problem.
3. The presence or absence of the disease can be measured, the medical/health care/psychiatric system is the obvious treatment venue, and as a disease it can excuse the gambler legally. This can help in courts of law, and treatment is more likely to be covered by insurance.
4. People who have multiple addictions and prior experience in recovery from substance use can readily apply their strategies to their gambling problem (personal communication with B. Andres, 2000).

Disadvantages/Criticisms of the Medical/Disease Model

1. The model labels problem gamblers. This can marginalize them. They may resist labeling to avoid being seen as members of a deviant group. It describes a "sick role," which requires that "patients" accept a label and work towards recovery. Those who refuse to accept the label and the role are seen as "in denial."
2. There is a shifting of responsibility from the person to a disease process. The "expert" becomes responsible for treating the sick person, relieving the problem gambler of responsibility for their own recovery.
3. Since the disease "happens" to the problem gambler, emphasis is on treatment, not on prevention.
4. The model was developed by clinicians and from the self-reports of those with very severe problems who had sought treatment. As a result, the model does not adequately account for the continuum of gambling behaviour seen in the general population, but only the "sickest." It was developed without input from those who have problems, but did not seek treatment.
5. The model overvalues biological and psychological factors, and undervalues environmental or sociological forces. It implies, for example, that the availability of gambling venues has little to do with gambling problems.
6. The model requires abstinence as the goal of treatment. There has been some clinical evidence that some people considered "pathological" gamblers can learn controlled gambling.
7. This model doesn't recognize the learned behavior component and that for some, unlearning is possible without making other changes in their lives (personal communication with B. Andres, 2000).

Summary:

A. Key ideas of this approach:
   1. It is black-and-white. You are either a compulsive gambler or you are not (you have the disease or you don't).
   2. Compulsive (or "pathological") gambling is a disease.
   3. Compulsive gambling is a progressive disease. The disease has specific stages (see a through h above)
   4. The only cure is abstinence.
B. Gamblers Anonymous and (in general) the medical profession subscribe to this.
C. The model reduces the burden of guilt, but labels compulsive gamblers, emphasizes treatment over prevention, and does not consider the possibility of return to moderate gambling.

Biological Theories

These theories view gambling as resulting from a physiological predisposition or condition that results in a physiological response to gambling. Most of the researchers in this group do not see gambling problems as a disease. They suggest some interaction between the predisposition and the environment, and see problem gambling as an acquired phenomenon.

Addictive tendencies appear to run in families. This has been used as evidence of a genetic tendency toward addiction itself, including addiction to gambling. Researchers in this area seem to agree that biological factors are likely to be more important for those who have a family history of addiction.

There are three main models within the biological group. They are based on 1) EEG waves (electroencephalogram or brain waves), 2) plasma endorphin levels (linked to arousal), or 3) other chemical imbalances in the brain.

EEG wave studies showed less differentiation between the brain hemispheres of problem gamblers than that seen in controls (i.e., in problem gamblers the brain hemispheres seemed to share more of the same functions, rather than be specialized for specific functions). The patterns resembled those seen in children with attention deficit hyperactivity disorder (ADHD). It is suggested that attention deficit may in part explain the impulsive behaviour of pathological gamblers.

Arousal studies measure arousal by objective measures or subjective measures. Plasma endorphin studies have shown that those who bet on horse racing have lower base levels of endorphins than those who gamble on video poker machines. Using heart rate or subjective measures of arousal, other studies have found that gamblers who were more aroused by gambling were likely to persist longer, and that frequent gamblers experience more arousal than do those who gamble less often. The theory is that gambling behaviour could be an attempt to maintain an optimum level of arousal.

Jacobs's General Theory of Addictions (Jacobs, 1986) is a widely known formulation of the arousal approach. It is intended to explain all addictions. It is not only biological; there is a psychological component. Jacobs suggests two underlying conditions that interact to cause discomfort. First, people gamble because of an inherited "unipolar physiological resting state." That is, their "resting state" is chronic overstimulation or else it is chronic understimulation. Gambling either becomes a way to escape overstimulation, or a way to feel more stimulated.

The other condition is a psychological problem such as rejection or insecurity that causes considerable psychological pain. The person self-medicates with an addictive behaviour, which allows them to retreat into a dissociative state, escaping pain and discomfort. Jacobs claims that people who report even one or two dissociative experiences while gambling (e.g. "feeling like in a trance," "feeling like a different person") may be using gambling as an escape from a painful reality into an altered state of consciousness. As dissociative scores increase, the gambler may be moving closer to addictive behaviour.

With Jacobs`s model, there are three stages of development of addiction: 1) discovery of the addictive substance/behaviour; 2) resistance to change; 3) exhaustion. You can change behaviour only in stages one or three.
Other researchers have added another subtype to Jacobs`s model, noting that pathological gamblers are prone to boredom, and seek stimulation to relieve boredom.

Recently, there has been some acceptance that some people may have physiological weaknesses that lead to problem gambling. The weakness in internal structure may manifest as an inability to plan ahead or recognize possible long-term consequences.

Biological theories suggest that treatment involve short-circuiting the arousal reflex, often with relaxation techniques, or sometimes with antidepressant medication.

Advantages of Biological Theory

1. Like the disease model, biological theories relieve problem gamblers and their families of a burden of guilt, and moral judgment.
2. Whether the biological markers (e.g. chemical imbalances, arousal markers) are the result or the cause of problem gambling, they may be helpful in identifying those with severe gambling problems.
3. If they are the cause, these physiological markers can be detected in predisposed people and problem gambling prevented.

4. This model supports the development and use of pharmacological interventions (personal communication with B. Andres, 2000).

Disadvantages of Biological Theory

1. We do not know if the physiological markers described are a result or a cause of gambling problems.
2. They emphasize physiological factors that are not exclusive to those with gambling problems.
3. They may diminish an individual's feeling of responsibility for (and control over) their own behaviour (personal communication with B. Andres, 2000).

In summary, the biological theories suggest that some physiological condition results in problem gambling, but most recognize that the physiological factor is not enough.

Environmental factors that contribute may include:

- family history of gambling, or other addiction
- exposure to gambling in childhood
- opportunity to gamble
- a stimulus from which the gambler needs to escape (e.g. psychic pain)
- peers who gamble.

An at-risk person may have both physiological predisposition and all of the above environmental factors, but never develop gambling problems. These factors are simply more likely to be present among those who do develop gambling problems.

Summary:

A. Key ideas of this approach:
   1. A physiological condition leads to a physiological response to gambling.
   2. Environmental factors are necessary to the development of problem gambling. Problem gambling arises from interaction between physiological predisposition and the environment.
   3. Problem gambling is not a disease.

B. **Jacobs's General Theory of Addictions** is a biological theory that incorporates a psychological component. It is intended to explain all addictions. It involves three stages of development of addiction.

C. Researchers in this area have found biological markers for addiction. These include chemical imbalances, brain wave patterns and such arousal markers as plasma endorphin levels and heart rates. These markers may be helpful in identifying potential problem gamblers, whether or not they are involved in causing problem gambling.

Psychological Theories

There are three major schools of gambling theory in this group: psychodynamic theory; behavioural or social learning theory; and personality or trait theory.

Psychodynamic Theory

In this school, the problem is within the individual's psyche. The source of the behaviour is entirely internal, unconscious, and beyond voluntary control. Like Jacobs's General Theory above, gambling is an attempt to heal a psychic wound or cope with conflict. Three psychological factors are suggested: sex, aggression and guilt. The consensus is that guilt is the most important factor.

In psychodynamic theory, problem gambling occurs in response to some trigger, often an event that causes psychic pain. The response is to escape or self-medicate through problem gambling.

For Whitman-Raymond (1988), the most important issue is pervasive developmental loss. Gambling is regression to an earlier stage of psychic development, related to the stage at which a child begins to see that he shares his mother's love with others, or perceives a loss of his mother's love. Gambling is precipitated by an emotional loss, which causes the regression. It also becomes an escape—a way to avoid further emotional risk.

Haustein and Schurgers (1992) identify four situations that have been triggers for people in treatment for problem gambling.

1. 90% experience the "big win" at the beginning of their gambling careers
2. About 50% report a separation or loss as a precipitating factor.
3. Just over a third reported that the beginning of marriage or another close relationship coincided with the start of problem gambling.
4. About a third reported that a professional success was related to the start of problem gambling.

The gambler gambles for escape. Winning and money are secondary.

Gambling and Masochism

Because winning is so unimportant to problem gamblers, some suggest that problem gamblers have an unconscious desire to lose. Freud (focusing on males only, as most psychoanalytic literature did) suggests that a young man may want to lose because, unconsciously, he wants to hurt his father. At best, a young man may have ambivalent feelings about his father, and gamble to punish himself for having negative feelings. If his father has died, he may blame himself, and gamble to punish himself for his father's death. Gambling may also be "feminine masochism," in which suffering equals love. Losing is symbolic of the gambler winning love from his father.

One researcher (Bergler, 1958) develops this idea further. The neurotic, unconscious wish to lose is manifested in gambling as a result of several specific psychodynamic mechanisms:

1. An echo, or residual of childhood feelings of omnipotence.
2. An unconscious aggressive impulse, directed toward oneself as punishment.
3. A thrill-seeking impulse. Gambling is "naughty," and may represent a form of sexual excitement.

The role of masochism has been questioned. Many problem gamblers have early winning streaks, sometimes several years long. Researchers suggest that no real masochist could take success for so long.

On the other hand, Rosenthal (1984) points out:

1. Not every problem gambler has had the "big win."
2. Freud's and Bergler's observations, although overgeneralized, are useful for treating patients.
3. Masochists can be successful in life to a point; they sabotage these areas or activities once they begin to become more meaningful.

Other Psychodynamic Theories

There are other theories on why people gamble. Some examples follow.

1. Freud made the link between gambling, alcoholism and drug dependence, but suggested they were all secondary manifestations of an underlying, primary addiction to masturbation.
2. Rosenthal (like Jacobs) suggested that gambling is an attempt to regulate swings in arousal. He says the underlying mechanism is a narcissistic personality. People who have a narcissistic personality tend to swing between arousal and depression. To regulate these swings, they may gamble, watch TV, drink, drug themselves, overeat, etc. They choose the activity that best regulates energy for them.
3. Rosenthal (1986, November) also suggests that people gamble to "control the uncontrollable," believing they can predict the future, or determine its outcome with magic rituals.

There are also various theories on the nature of the problem.

1. Problem gambling is a compulsion neurosis.
2. It is an impulse disorder. The DSM-IV describes it as a disorder of impulse control.
3. Fenichel (1945, in Lesieur and Rosenthal, 1991) suggests that the gambler is in conflict with a personification of Fate, which must decide for or against them. This theme recurs elsewhere with the suggestion that gambling represents an attempt to resolve conflicts with parent figures.

Advantages of Psychodynamic Theory

1. Focus on internal processes that may lead to problem gambling.
2. The case study literature is useful for describing the progress of problem gambling and its treatment.

Disadvantages of Psychodynamic Theory

1. These models are difficult to prove or disprove, therefore unscientific in nature.
2. It is difficult to tell whether observed features on which these models are based are symptoms or causes.

Summary:

A. Key ideas
   1. Gambling is an attempt to heal a wound or conflict.
   2. Sex, aggression or guilt may play a role. Guilt is the most important factor.
   3. Problem gambling is a response to some trigger, often a traumatic event. It is an attempt to escape or self-medicate.
   4. Possible triggers include an early big win, a separation or loss, the beginning of a close relationship, and professional success.

B. Some suggest problem gambling is masochistic. The gambler wants to lose to punish himself for negative feelings for his father, or the gambler may equate suffering and love, so feels loved by his father when he loses. Some psychodynamic theorists have elaborated on this; others have contested the role of masochism.

C. Psychodynamic theorists have also offered other motivations for problem gambling. They also have different ideas on the nature of the disorder (e.g. compulsion neurosis, impulse disorder, attempt to resolve conflicts with parents).

D. Psychodynamic models are difficult to prove or disprove, and it's hard to tell whether features observed in problem gamblers are symptoms or causes. However, case studies by psychodynamic researchers are useful in describing progress and treatment of problem gambling.

Personality or Trait Theory

The search for personality traits that may have caused the gambling problem has been wide and not very fruitful. Most consistently, gambling has been linked to high scores on depression measures. Even this connection has not been universally supported, and there is evidence both that depression leads to gambling and that problem gambling causes depression. There is evidence that most if not all problem gamblers have experienced significant loss or trauma, and depression could be a result of such an experience, and have no causal relationship to the problem gambling.

Other proposed personality traits have showed even less promise.

1. Antisocial personality disorder: Gamblers have been shown to score higher for this, but this may be because the gambling causes them to commit the offenses (lying, stealing, etc) that are used to diagnose this disorder.
2. Achievement orientation, exhibitionism, dominance, heterosexuality, deference and endurance: One specific study which indicated high scores for these traits among gamblers has led to a common view of problem gamblers as overachieving, intelligent and manipulative. Other studies have failed to support this.
3. Anxiety: This trait has been linked by some researchers, but not by others.

Low ego strength, low self-control, narcissistic personality disorder, and a high desire for control have all been linked to problem gambling.

Psychopathologies related to problem gambling include neuroticism and sociopathy. Problem gamblers have elevated psychopathic deviation scores.

Subtypes of Problem Gamblers

Some researchers now suggest that there are several different trait profiles that motivate gamblers.

1. One study found two groups. One had very high psychopathic deviation scores, and tended to a sociopathic, sensation-seeking lifestyle. The other group had profiles consistent with other mental disorders, including schizophrenia and neuroticism.
2. One study suggested three types: those who were depressed, those who were primarily bored, and those who were both bored and depressed. Gambling is an attempt to cope with these uncomfortable states.
3. Some research suggests different traits are associated with different types of gambling. Skill gamblers (who are more likely to bet on poker or sports) are more likely to be outgoing and hypomanic and less likely to be depressed than luck bettors (lotteries or slot machines). There is clinical support for this, which observes that skill gamblers are more likely to have personality disorders and luck gamblers are more likely to have affective disorders.

Researchers (Wildman, 1997 and McCormick and Taber, 1987) have had a second look at some earlier studies that used psychological test scores to try to find a single profile of gamblers. Because the original studies were looking for a single profile, test scores were averaged out. The more recent research looked at the test scores to find several subtypes. McCormick and Taber found five major clusters of personality traits that are most likely to be linked to problem gambling:

1. obsessive-compulsive tendencies
2. a mood factor (ranging from depression to hypomania)

3. presence of significant trauma or major life stressors (recent and acute to chronic and remote)
4. a socialization factor (with problems associated with antisocial personality disorder)
5. substance abuse or multiple addiction problems.

Theory of the Addictive Personality

The scores of alcoholics, problem gamblers, and drug users on personality tests are quite similar. One study concluded that gamblers, although similar to alcoholics, have more extreme personality deviations than alcoholics do. There is good evidence of cross-addiction:

1. One study found that 30% of problem gamblers had a problem with alcohol, another reported 54%.
2. A study found that 9% of those in an alcohol and drug treatment program were problem gamblers, and a further 10% showed signs of gambling problems.
3. There is evidence of a relationship between problem gambling and a number of addictions, including eating disorders.

Advantages of Personality Trait Theory

The one strength of personality trait theories is that there is some agreement that problem gambling is symptomatic of an underlying psychopathology, namely that problem gamblers are more likely to blame themselves for negative life events. Psychotherapeutic treatment, then, would focus on convincing patients that these events were not their fault.

Disadvantages of Personality Trait Theory

The extensive search for a unified personality profile of problem gamblers does not seem to have contributed much to the understanding of problem gambling. There is somewhat more promise in the recognition that there are various types of gamblers.

Summary:

A. Key idea: There are certain personality traits that may cause problem gambling
B. Depression has the greatest association with gambling, but it is unknown whether the depression caused the gambling or vice versa.
C. The relationship is questionable with regard to antisocial personality disorder, anxiety, and a number of other traits. Study results conflict.
D. There is a lot of difficulty finding support for any one trait or group of traits, and little agreement among researchers.
E. Some researchers now suggest that problem gamblers fall into a number of different categories, each with a different trait profile.
    1. One study suggested two groups. Group 1 scores high for psychopathic deviation, with sensation-seeking lifestyle. Group 2 had profiles suggestive of other mental disorders.
    2. One study said three groups: depressed, primarily bored, and both bored and depressed. They gamble to "medicate" these conditions. (Note similarity to biological theory).
    3. Some research says different traits for different types of gambling. Skill gamblers are outgoing and hypomanic. Luck bettors are more likely to be depressed.
F. McCormick and Taber found five major clusters of personality traits that are most likely to be linked with problem gambling (see list, previous page).
G. A theory of the addictive personality is based on the fact that the personality test scores of alcoholics, users of other drugs, and problem gamblers are quite similar.

Social Learning Theory

These models view gambling as a behaviour learned during the process of socialization and formation of the individual self. It is learned through imitation of an admired figure or of peers. The degree of gambling activity (frequency, money spent) is determined largely by the social context, or environment of the gambler. With more opportunities to gamble, people will gamble more often. Opportunities to gamble are affected by a person's occupation or leisure time pursuits, a person's peer group, geographic availability of gambling venues, and general views about the use of money.

In some cases, gambling serves an adaptive function, allowing a person to regulate their level of arousal (note overlap with physiological theories). Using gambling in this way can lead to major losses, leading to "chasing." Life crises occur, brought on by the gambling itself.

Social learning models suggest that gambling behaviour falls along a continuum: problem-free to problem-dominated. Development of gambling problems does not follow set stages (although there may be patterns) and serious gambling problems are not considered permanent. Spontaneous recovery from problems is possible.

Social learning theory can encompass physiological models, psychodynamic theories, some aspects of the medical model, and also some sociological theories. A major feature of social learning or behavioural theories of problem gambling is the belief that because the behaviour was learned, it can also be unlearned. In this way, it is like cognitive behavioural approaches. As with physiological approaches, arousal is a factor.

Important mechanisms in developing gambling problems, as proposed by one researcher (Brown, 1987), include:

- internal fantasy object relationships which the gambler has with their parents, or with personifications (e.g. "Lady Luck"), and the gambler's attempts to manipulate these relationships
- psychophysiological arousal needs
- affective factors (e.g. anxiety or depression)
- cognitive distortions which contribute to gambling problems
- behavioural reinforcement schedules that reward the gambler and encourage further gambling
- social and institutional determinants (i.e. opportunities to gamble and to obtain funds to gamble)
- subcultural conditions (e.g. social attitudes to gambling, the dominant values of the gambler's social context and reference groups).

One researcher, Dickerson, advocates minimal treatment (less professional intervention). With others (Dickerson, Hinchy and England, 1990), he developed a self-help manual (a chance to "unlearn" the behaviour) for problem gambling. A study evaluating its effectiveness reports that two-thirds of those given the manual were abstinent at six months.

Advantages of Social Learning Theory

1. The major strength of these models is that they include the entire population of gamblers, with no artificial distinction between problem and non-problem gambling. They are based on gamblers, and not only on problem gamblers.
2. Social learning theories are more holistic in terms of cause and treatment of problem gambling. They take into account the interaction of biological and environmental factors.

Disadvantages of Social Learning Theory

1. These theories can underestimate the power of individual motivation, emotions and perceptions to influence outcomes, and overestimate the effects of external social factors.
2. They emphasize the adaptive properties of gambling, but neglect the function of gambling as an escape.

Summary:

A. Key ideas
   These models emphasize the individual's relationship to society.
   Gambling is learned through imitation of peers or role models.
   How much people gamble depends on their social context: opportunities to gamble, available venues, occupation, leisure pursuits, social attitudes to gambling, peer group values, views about money.
   Gambling can be adaptive, allowing a person to regulate level of arousal. Using gambling in this way causes losses, which cause "chasing."
   Gambling behaviour falls along a continuum, from problem-free to problem-dominated.
B. Problem gambling development does not follow set stages.
C. Spontaneous recovery from problems is possible.
D. Sociological theories study all gamblers, not just problem gamblers.
E. These theories may overemphasize the adaptive properties of gambling, and underemphasize its function as an escape.

Cognitive-behavioural Theory

These models build on learning theory, but focus on the role cognitive processes play in starting and maintaining gambling behaviour. Gambling behaviour is acquired through operant and classical conditioning. The behaviour is reinforced on a partial and variable reinforcement schedule. Reinforcement is in terms of financial rewards and heightened arousal, which the gambler interprets as excitement.

Most gamblers will have a win within the first few times they gamble. The win is positive reinforcement. With more wins, physiological arousal becomes associated with monetary rewards, and thus becomes even more reinforcing. This is a very powerful system of reward: arousal as reinforcement plus the partial reinforcement of money and other prizes. Wins are intermittent, but will occur, so gamblers learn to continue gambling in spite of losses.

Associations may form through classical conditioning. The gambling environment may be associated with arousal. Gambling-related stimuli can then trigger arousal, and gambling-related cognitions (e.g. "I feel lucky"). If the gambler is winning, expectations of reward and gambling-related cognitions are reinforced. Losing makes the gambler feel like a win is just around the corner. This is known as the gambler's fallacy: the more a gambler loses, the more he or she is likely to feel they will win on future bets. This leads to "chasing" losses.

Gamblers' coping skills will determine whether or not they become problem gamblers. In this context, "coping skills" means the ability to control heightened arousal, to analyse irrational thought, to delay decision-making, to delay reinforcement, and to apply problem-solving skills.

Once gambling is habitual, when the gambler encounters the associated stimuli, he or she experiences a "behaviour completion mechanism." The body responds to the stimuli with arousal. The gambler becomes very uncomfortable if the triggered behaviour is not completed.

A number of cognitive biases play an important role in gambling problems.

1. The illusion of control: the gambler feels that games of chance have elements of skill (e.g. picking the right slot machine)
2. Biased evaluations: Gamblers overestimate their chances of winning.
3. The reinforcing properties of the "near miss": Gamblers get positive reinforcement from "almost winning" (e.g. the slot machine shows two cherries and just misses the third), rather than seeing this as a loss.

Treatment from a cognitive behavioural approach involves examining and correcting irrational beliefs, and behavioural therapy around the triggers for gambling. Treatment may also include problem solving, training in social skills and relapse prevention. Ladouceur has done a great deal of work on treatment using this approach.

Sociological Theories

These theories, like social learning theories, see gambling behaviour as a continuum. This perspective further suggests that gambling problems are not necessarily compulsive or even destructive or irrational. Gambling can offer:

1. the chance to take on an exciting role—the "high roller"—and gain respect from others (appeals to chronically understimulated gamblers)
2. the ability to escape the outside world through a limited repetitive activity (appeals to overstimulated gamblers)
3. social rewards like membership in a gambling subculture that gives a gambler identity, a language, and like-minded peers. When wider society seems threatening, the gambler retreats to this subculture.

Gambling can thus be seen as a lifestyle chosen by someone who is unable to cope with the complexities of the world outside the gambling context.

Treatment, from the sociological perspective, is often intended to draw gamblers out of the subculture and back into mainstream society. They could be taught abstinence, or social or recreational gambling. They learn relevant coping skills, develop alternative rewards, and strengthen ties with family, friends and community.

Sociological theories also note the different rates of gambling among people of varying socioeconomic status, and attempt to explain this phenomenon.

Advantages of Sociological Theories

The major strength of this perspective is its focus on environmental and cultural factors that influence gambling behaviour.

Disadvantages of Sociological Theories

Critics say that this approach observes gambling behaviour, but provides no interpretation. It is also said to provide little for therapists to work with.

Synthesis of Theoretical Perspectives

School of thought	Perspective	Overlap with other schools of thought
Medical or disease model (clinical and AA approach)	• Physiological predisposition plus trigger or opportunity leads to disease. There is an inevitable progression of the disease. • Problem gamblers are qualitatively different from other gamblers; you have the disease or you don't. If you have it, there is no cure. You can only solve your problems by abstaining, thus avoiding the aggravating situation.	Physiological component, as in biological theories. Opportunity to gamble matters, as with social learning theory.
Biological theories	Physiological condition or tendency is underlying cause	Development of pathology depends on environmental factors.
Psychological theories: - Psychodynamic	• Rooted in ambivalence to parents, gambling is an attempt to win parents' approval and punish self for negative feelings for parents. • Onset may be sparked by a loss, or by sudden professional success or beginning of intimate relationship.	As in biological theories, especially Jacobs's General Theory (see p. 3), gambling is attempt to self-medicate (reduce or increase arousal). Poor coping skills contribute (as in cognitive-behavioural and sociological models).
Psychological theories: - Personality or Trait	• Underlying psychopathology is tendency to blame themselves for negative life events. General agreement that there are several subtypes of personality traits. Different types of gambling attract different sub-types of gamblers.	Gambler self-medicates (as in Jacobs, above), or escapes from life circumstances (as with biological theories, an environmental component).
Psychological theories: - Social Learning	• Gambling is a learned behaviour during the process of becoming socialized and forming the self. It is learned by imitation of peers or admired others. It can be unlearned. • Gambling has an adaptive function, allowing person to regulate level of arousal. • Problem gambling is the extreme end of a continuum from problem-free to problem-dominated gambling.	Gambling is used to regulate arousal. Opportunity to gamble is important to development of the problem (environmental component: disease model). Gambling-related cognitive distortions contribute (as with cognitive-behavioural).
Psychological theories: - Cognitive-behavioural	• The gambler is gradually conditioned and reinforced in the behaviour, learns triggers for the behaviour, and eventually becomes very uncomfortable unless (s)he responds to gambling-related stimuli. • Those with poor coping skills are less able to resist gambling once they encounter a trigger.	Cognitive biases play an important role (as in social learning). Poor coping skills contribute (as in sociological, psychodynamic). Stimuli important, thus environmental component.
Sociological	• Gambling problems are not necessarily irrational. Gambling has social rewards: being a "high roller" gets respect from others; retreating into a sub-culture when broader society feels threatening. • Treatment is to draw gamblers back into mainstream society. • Those with poor coping skills (threatened by challenges of the outside world) are more likely to become problem gamblers.	Poor coping skills contribute (as in psychodynamic, cognitive-behavioural theories). Environmental factors seen also in biological theory, cognitive behavioural, social learning.

Other Theories

Economic Theories

Economic models see two basic motivations for gambling: the chance of greatly increasing personal wealth and entertainment. Most economic analyses have focused on the wealth motivation. Gambling is a rational and efficient means of moving up economically, when there are no other options available.

Some hypotheses derived from economic models are supported by data on gambling. The relatively poor spend more of their income on gambling than the relatively rich, and winners of large prizes may then suddenly stop or reduce gambling. Older people (less access to other ways of generating wealth) and people with larger households (poorer) are more likely to gamble.

When the motivation for gambling is entertainment, gambling is a commodity purchase. Gambling as entertainment is most often found amongst those who are well off, are younger on average, have smaller households, are better educated, are securely employed, or have recently had a significant increase in personal wealth.

Anthropological Theories

One researcher (Wildman, 1997) suggests that gambling is a holdover from a time when risk-taking behaviour had positive evolutionary value. Gambling creates anxiety and heightened arousal. People react with the "fight or flight" reflex, an inappropriate response to this situation, and one which encourages persistence where there is no reasonable hope of success.

A New Conceptualization of Problem Gambling:

Moving the focus from the individual to the wider community

The theories and models above have given us a better understanding of the causes of problem gambling. These perspectives all tend to focus on characteristics of the most seriously affected problem gamblers, however, while the profile of the less affected or episodic gambler remains less well understood. There is a need to understand gambling as it occurs in the population as a whole, moving away from a "clinical/ diagnostic preoccupation with a small minority of the total population that gambles."

An Epidemiological Approach to Problem Gambling

Moving from the dominant medical perspective, which focuses on diagnosing and treating the "sick" individual, some researchers have suggested that we adopt an epidemiological perspective. Epidemiology is concerned with the distribution and determinants of health and diseases. Using this perspective, problem gambling is seen as a public health issue. The goals of focusing on problem gambling as a public health issue would be:

- to describe the pervasiveness of problem gambling as a population health issue
- to explain the etiology (causes) of problem gambling
- to predict the occurrences of problem gambling, and
- to control the distribution of problem gambling.

Epidemiology involves the identification of agents, hosts and environments. It is generally most successful when applied to infectious diseases, less so when applied to diseases with complex causation (e.g. cancers), and even less so when applied to the broadest social problems, from

crime to domestic violence and school failure. Almost any social phenomenon or condition can be considered an agent, a host, or a part of the environment.

Despite this difficulty in applying epidemiology to broader human behaviour (such as drinking, drug use and gambling), problem gambling is a public health problem, in that afflicted individuals create direct and indirect costs for society, costs which are not incurred on behalf of other individuals. In this vein, the report characterizes problem gambling as a public health issue, defining it as follows:

> **Problem gambling** is gambling behaviour that creates negative consequences for the gambler, others in his or her social network, or for the community.

An Integrated Conceptual Framework

The perspective that appears to have the most to offer as a new way to conceptualize problem gambling comes from the "healthy communities movement" which emerged in the United States in 1993 as an outcome of proposed federal health care reform. In 1997, the U.S. Institute of Medicine (IOM) undertook a two-year study of healthy communities. This research provided a new conceptual framework for both examining and reducing problem gambling in the community.

The CHIP Model

Central to the epidemiological or population health perspective is the framework developed in 1989 by the Canadian Institute for Advanced Research. It depicts the interrelationship of multiple determinants of health (social environment, physical environment, genetic endowment, an individual's behavioural and biologic responses, disease, health care, health and function, well-being, and prosperity).

Reviewing these determinants of health, studying the community-level forces that can influence the determinants, and employing community experience with performance monitoring, the IOM developed a framework for community health improvement that has been labeled the Community Health Improvement Process model (CHIP). The CHIP model holds great promise for organizing collaborative efforts to improve health in communities in Canada. The model is simple, logical, and prescriptive:

- A multi-stakeholder health coalition forms in the community and assumes leadership responsibility for facilitating a healthy communities initiative.
- The health coalition prepares and analyses a community health profile that includes measurable indicators.
- The health coalition continuously scans the environment to identify critical health issues.
- Responses to identified health issues are mounted and monitored.
- The responses include marshaling community resources, identifying shared responsibility and accountability, and monitoring intervention outcomes to see if these address the identified health issues and, ultimately, improve the health of the community.

The CHIP Model Applied to Problem Gambling

The CHIP model not only serves as a helpful analytical framework for examining and devising strategies for improving overall health in the community, but it provides direction for inquiry and intervention strategies relative to problem gambling in at least three important areas:

1. Broader understanding of community health and problem gambling

There are various interrelated determinants of health in a community and it is important to examine the extent to which problem gambling influences, and is influenced by, these health determinants.

Health is the presence of well-being as well as the absence of illness. Problem gambling research, then, should focus on the entire continuum of gambling behaviour, taking into account what *is not*, as well as what *is*, problem gambling behaviour to achieve a broader understanding of gambling in the population. In other words, research should ask if there is such a thing as "healthy gambling." If there is, can it be promoted in a community?

2. Examining problem gambling from a shared community perspective

Just as the improvement of community health is a shared responsibility, so too is mitigating health issues, including problem gambling. A multi-stakeholder group, such as a community health coalition, should undertake the examination and mitigation of problem gambling as part of an overall initiative to improve community health.

3. Problem gambling as an indicator of community health

The presence and level of problem gambling should be an indicator of overall community health. Moreover, at the community or population level, this indicator should be measured and monitored as various intervention strategies are employed to mitigate problem gambling.

Community stakeholders should collaborate in developing solutions for gambling problems. They should agree on health improvement indicators that will be monitored to assess the effectiveness of these strategies. Not only will they be able to measure the effectiveness of individual programs, but they may also be able to assess the cumulative effect of all community problem gambling interventions.

Problem gambling is a public health issue that cannot be dealt with in isolation from other issues or apart from efforts to improve the overall health of the community. Furthermore, in endeavouring to deal with problem gambling, the CHIP model reminds us that (1) public and private sector collaboration should be facilitated at the outset; (2) all facets of problem gambling should be examined with a view to implementing the most appropriate intervention strategies; (3) ameliorating problem gambling should be a shared responsibility with various stakeholders agreeing to be held accountable for desired outcomes; and (4) collaborative efforts should be clearly focused and integrated with the expectation that the effectiveness of problem gambling interventions will be monitored.

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The references in this summary are given as cited in the original report and can be found at website: http://www.ccsa.ca/final3.htm

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